

REMARKS

Applicants appreciate the telephone interview conducted with the Examiner on January 27, 2009. In the interview, Applicants request clarification of page 5, last paragraph of the Office Action, wherein the Examiner asserted that an area ratio of the higher-luminance pixel and the lower-luminance pixel so that a luminance can be obtained substantially equal to a desired luminance based on the luminance data was taught by Kimura, instead of Kim as indicated in the Office Action. In particular, the Examiner asserted that paragraphs [0002, 0017, and 0022] of Kimura teach this feature.

Applicants further discussed with the Examiner paragraph [0017] of Kimura, which teaches electro-optical elements having two values including a lower luminance level and a higher luminance level. Applicants pointed out to the Examiner that this paragraph [0017] of Kimura fails to disclose or suggest an image processing method that includes a step of determining a luminance on the higher-luminance pixel and luminance on the lower-luminance pixel in combination with an area ratio of the higher-luminance pixel and the lower-luminance pixel so that a luminance can be obtained substantially equal to a desired luminance based on the luminance data. The Examiner indicated that it would be obvious to obtain an area ratio, and Applicants disagreed and asserted that it would be impermissible hindsight to determine this ratio since Kimura provides no teaching, suggestion or motivation to determine this specific area ratio. The Examiner indicated that Applicants should clarify our argument in a response, which Applicants have done in the following remarks.

As a preliminary matter, Applicants appreciate the Examiner's allowance of claims 4-5.

Claims 1-3, 6 and 82 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kim et al. (U.S. Patent No. 7,205,970) in view of Kimura (U.S. Publication No. 2002/0118153A1). Applicants traverse the rejection because the cited references fail to disclose or suggest an image processing method that includes a step of determining a luminance on the higher-luminance pixel and luminance on the lower-luminance pixel and an area ratio of the higher-luminance pixel and the lower-luminance pixel so that a luminance can be obtained substantially equal to a desired luminance based on luminance data of an image to be displayed.

As discussed in Applicants' Specification on page 17, last paragraph, FIGs. 1-5 illustrate the principal of imaging processing methods according to an embodiment of the present invention. In the embodiment, a plurality of pixels are as one unit, to provide higher luminance to part of the plurality of pixels and the luminance of an unprocessed original image. A lower luminance to part or the entire of the remaining pixels than that of the unprocessed image is also provided. The pixels that are increased in luminance are higher-luminance pixels, and the pixels decreased in luminance are lower-luminance pixels.

The present invention as discussed in Applicants' Specification on pages 17-18 are set in a ratio such that the luminance in the frontward direction is unchanged around the image processing and the total area of the pixels to be decreased in luminance is equal to or broader than the total area of the pixels to be increased in luminance. FIG. 1 depicts an

example of nine pixels in a three times three matrix form that are grouped as one unit to provide one higher-luminance pixel 1a and eight lower-luminance pixels 1b, as shown in FIG. 1B. (See also page 19, second paragraph, of the present Application).

As further discussed in Applicants' Specification on page 21, last paragraph, through page 22, first two paragraphs, the image processing method of the present invention can suppress the ratio of lightness T60 at 60° to a frontward lightness T0 which suppress the occurrence of a straw-colored image during oblique viewing of an image. Additionally, as discussed in Applicants' Specification on page 24, first paragraph, the image processing method of the present invention can disperse the influence of distortion in two regions where the distortion influence evaluation numbers decreased in value, which results in the influence of distortion being reduced.

Kimura is silent regarding the problems of oblique viewing of an image or above advantages. Paragraph [0005] teaches that the object of Kimura is to provide a display device that can realize lower power consumption and longer life, and also provide a driving method suitable for reducing power consumption and prolonging the life of a display device.

Kimura fails to disclose or suggest determining an area ratio of the higher-luminance pixel and the lower-luminance pixel to obtain a luminance. This is because Kimura is not concerned with the problem of oblique viewing of an image. Since Kimura is silent regarding an area ratio of a higher-luminance pixel and a lower-luminance pixel to obtain a luminance, and the problems solved by Kimura are different from the problems solved by the present invention, Applicants respectfully submit that the Examiner has utilized

impermissible hindsight to assert that the combination of Kim and Kimura teach the area ratio feature of the present invention. Accordingly, since there is no teaching, suggestion, or motivation to obtain an area ratio of the higher-luminance pixel and the lower-luminance pixel to obtain a luminance, as recited in independent claim 1, withdrawal of the §103(a) rejection of claims 1-3, 6, and 82 is respectfully requested.

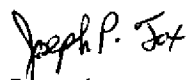
Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kim and Kimura, and further in view of Koma (U.S. Patent No. 7,133,101B2). Applicants respectfully traverse the rejection for the reasons recited above with respect to the rejection of independent claim 1.

The deficiencies of Kim and Kimura are noted above. Koma is merely cited for teaching a liquid crystal having negative dielectric anisotropy which is in a vertical alignment and under no application of voltage. However, Koma also fails to disclose or suggest the step of determining a luminance on the higher-luminance pixel and luminance on the lower-luminance pixels and an area ratio of the higher-luminance pixel and the lower-luminance pixel so that a luminance can be obtained substantially equal to a desired luminance based on luminance data of an image to be displayed. Accordingly, any combination of Kim, Kimura, and Koma fail to disclose or suggest this feature. For this reason, withdrawal of the §103(a) rejection of claim 7 is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge any additional fees which may be required to this Application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,
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